NYS GIS State Agency Advisory Group Meeting Agenda

Virtual WebEx May 18, 2021

Welcome/Roundtable Discussion of Licensing of GIS Software in the Agencies. The attendees were called on to introduce themselves, and note how their organizations manage licensing of desktop geographic software products:

- **Eric Herman NYSTA:** Use concurrent licensing for ArcGIS Desktop, Global Mapper & Trimble Pathfinder Office; Conversion of ArcGIS Online accounts needed to begin using ArcGIS Pro
- Barbara Cruden ITS (DEC): All agencies supported use the Esri Enterprise Licensing Agreement (ELA); Tim Daly has further details
- Anyée Fields NYTSA: As Eric stated, above
- Anthony Calabrese NY Senate: Use all open source software (Postgres, PostGIS, Google Geocoder), so no licensing issues
- Christina Croll Parks: Part of state's Esri ELA; ArcGIS Desktop concurrent use licenses (single use were dropped when moved to ELA); People using ArcGIS Pro often do work with ArcGIS Online; Lots of named users who authenticate through Active Directory (at ny.gov); Using Pathfinder Office single use licenses; AutoCAD has shifted to cloud-based licensing; Issues were noted with using the same license managers on same server for different products
- Carol Hockeson ITS (DOH): Doing pandemic work/using Esri license
- David Ettere NYPA: Not part of ELA; Using ArcGIS desktop concurrent licensing with some single use for fieldwork; ArcGIS Server on premises, and distribute to Online platform; Most data from local servers with public; Moving to ArcGIS Pro
- **Douglas Done DOH:** Primarily ArcGIS for geocoding purposes; Unsure of licensing within the organization
- Frank Winters GIO: ELA with Esri (20 agencies have signed on) using a pool of licenses for cost savings; ELA requires paying later as maintenance costs come due; QGIS click-wrap license reviewed, and did a risk analysis working through this and options to install components
- **Gwen LaSelva DOH:** Have servers that manage concurrent users
- Jason Baum GPO: Work on platforms (CIRIS, ShareGIS) mostly ArcGIS Server/Enterprise & ELA
- Katherine Barnes DEC (Wildlife): Deferred to Tim Daly for licensing
- Mark Giddings DOH (Nutrition): 2 concurrent user licenses (not part of ELA/pay as needed)
- Melissa Albino DEC (Marine): Use Esri software and part of ELA with some use with open source R packages
- Michael Schifferli Parks (SHPO): Using the state ELA and ArcGIS Pro & Survey 123
- Michele Golden DEC (Water): Deferred to Tim Daly for licensing
- Peter Lauridsen DOS: Use of ArcGIS Desktop and ArcGIS Pro have 8-10 concurrent licenses
- Rebecca Newell DOS: Same as Peter noted above
- Robert Rizzo ITS (DOT): Using the state's ELA with Esri; Concurrent use licenses and have some single use licenses (35 advanced users & 300 standard); About 30 ArcGIS Pro licenses; Using IWA portal (Active Directory) with about 6000 users; Use SAML on Enterprise with ny.gov;

System of Record portal for transactional databases; Replacement of ALIS as CLEAR – first model in June; Some ArcGIS Online users, but mostly on-premises now, leveraging existing environment; 25 Trimble Pathfinder Office concurrent use; ArcGIS Server without enterprise – internal with Latitude Geocortex in 2 environments; Not a lot of ArcGIS Pro right now; Moved to Portal

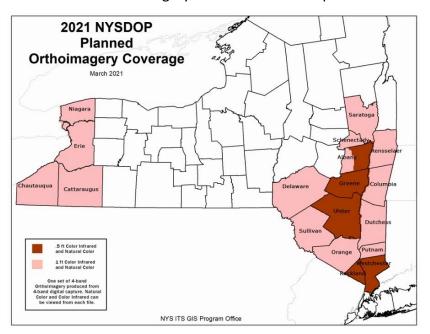
- Robert Zitowsky DOT (Traffic Safety): See comments from Rob above; not involved in licensing
- Sean O'Connell GPO (Data Improvement, orthos, emergency response): Lots of ArcMap, Global Mapper, ArcGIS Online, Survey 123; Not familiar with licenses
- Matthew Shepherd Parks (SHPO): GIS for SHPO's CRIS application ArcGIS Pro & some online; Deferred to others for licensing
- Tim Daly ITS (DEC, Park, APA, DPS, Ag & Markets): All agencies using ELA; APA uses concurrent licenses and Portal; DPS uses concurrent licensing and server; Ag & Markets mostly use of stand-alone; DEC uses concurrent licensing with about 180 users peak on a given day; many extensions in use; ArcGIS Online with about 400 named users; ArcGIS Pro is gaining interest and users with about 60-70 named users enabled; DEC does not use Portal for ArcGIS
- Todd Nelson GPO: Frank covered licensing
- Stephanie Rockwell Canals: Use a consultant for licensing individual users who log into Citrix;
 ArcGIS Pro and ArcGIS Online use
- **Tim Ruhren GPO:** Need stand-alone ArcGIS licensing for laptops that go out for incident management; Use Global Mapper on a network licenses; DHSES support has hit some limits with Esri, and have worked out these issues for use of mobile apps (tracking usage)
- Ken Zalewski Senate: Joined after intros

Understanding the Enterprise License Agreement between NYS & Esri. Frank discussed the history of the Esri Enterprise Licensing Agreement (ELA). The first ELA with NYS goes back decades to NYSDOT. He noted that although the ELA is like an "all you can eat" buffet, you get charged more the next time you come in. Although there's no cost during the ELA, there are ongoing payments. Licenses get deployed in growth areas, which doesn't require procurement of more licenses to expand. For named user licensing, initial savings aren't as dramatic. However, the state needs to keep track, to understand what needs to be paid later. The GIS Client Office was to taking care of this tracking but hasn't been staffed to a level to deal with this. Costs in the ELA are established for 2¾ years, and money is collected from participating agencies through the state's B-1184 process on an annual basis. Costs are rechecked, even though prices are fixed. There was an attempt at a statewide ELA years ago, but the plan lacked a way to administer the licenses. The ELA is procured through a purchase order for an SKU on the OGS Esri contract. The current state ELA covers 20 agencies that have negotiated this SKU. If other agencies are interested in joining, they should talk with Chris O'Connor at ITS. Frank also noted that open source tools may be the most cost-effective solutions for several applications.

Update on the Coordination with Wayfinding Companies. Frank then moved on to discussing coordination with wayfinding companies. He noted efforts to decrease bridge hits that occur due to people following GPS navigation directions. Using smartphones has changed navigation and safety issues for the roadways. Creative Commons 0 (CC0) is the gold standard for data that's publicly

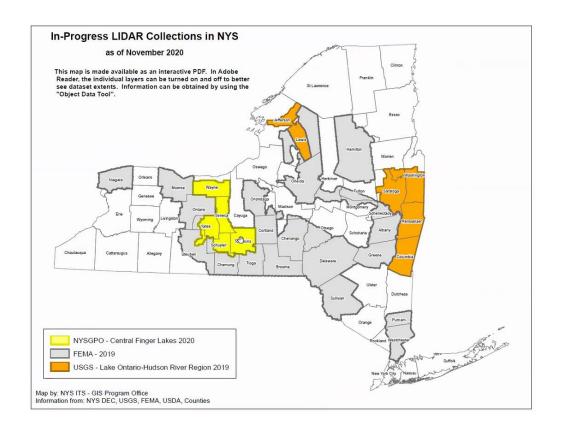
available and that publishers would like to be used broadly. It allows for an understanding of liability for data use. Google is now actively using the state's data, since using CCO. FHWA is recommending use of CCO and NSGIC is currently looking at using this. The language is clear and provides consistent wording. With more consistent agreements like this, compliance rates will continue to grow (i.e., more states that use this, the easier it will be). There's interest in a scope that includes addresses, road names and alignments, directionality, bridge clearances, exit numbers, work zones, and curve warnings. 511 of the 618 bridge strikes recorded in recent years were due to following a wayfinding device. Frank noted that he's co-chairing a specification extension subgroup for data exchange of bridge clearance data to make it easier to ingest the data and get ahead of legislation. Christina noted that people should think about expanding the idea of sharing a wide variety of data from authoritative sources beyond roadways (e.g., park boundaries).

2021 Orthoimagery Update. Tim discussed the 2021 orthoimagery plan. All areas in the plan were flown between March 20 and May 1 of this year. All imagery has been reviewed and accepted. It's a combination of 6" and 12" resolution imagery. He showed this map of the areas covered:



Aerial photography is now in house and is roughly georegistered. If people need an early version of the data with rough geo-registration, then should contact Tim. Eric and Tim discussed the benefits of this around the new Governor Mario M. Cuomo Bridge. Finalized data should be available by the end of year.

Updates on LiDAR Projects. Tim then discussed LiDAR. No LiDAR was flown this year. Instead, the group has been working on more value-added products and focusing on areas that may need updates. He discussed the status of active projects as seen on the map below:



The central Finger Lakes region was delivered to the federal government for review for inclusion into the 3DEP program. People can reach out to Tim or Jeff Langella if an early version is needed. The FEMA 2019 LiDAR project is still underway. The data has been collected, but not yet released. It will be released when it's completely processed, instead of incrementally. Tim expects availability in the fall. Bare earth DEMs may be available earlier. The USGS project covering Lake Ontario and the Hudson River region should be available in summer. Tim noted that these valuable datasets and their web services do get a high level of use.

NYS Senate's SAGE Application. Anthony Calabrese then discussed the Senate Address Geocoding Engine (SAGE), which services internal and external users. Internally, SAGE works with Bluebird, a Constituent Relationship Management (CRM) package that allows legislators to identify their constituents through a variety of API requests. The public facing interface, "Find My Senator", is on https://nysenate.gov, and uses calls to the API to identify people's districts and senators. Bluebird and nysenate.gov account for approximately 90% of the web traffic. Technologies used to develop the tools include the open source technologies Java 15, Maven, Postgres, PostGIS 3, Angular, and Spring 5.

Anthony then demonstrated the internal SAGE interface. He showed the District Lookup, where the user can enter an address that gets geocoded then shows the legislative districts that match the location. It uses the NYS, Google, and TIGER geocoders. He also showed the USPS Lookup, which validates all addresses through a paid USPS service. To identify districts, the addresses are matched to street files that each county's Board of Elections uses. If there's no match, then the geometry of the shapes is used to return a result. The interface also allows users to display district maps and overlay with other data, such as zip codes. Anthony discussed tracking exceptions and status of running jobs, and caching to improved performance over time. In the future, the Senate will be revisiting street file

parsing, and upcoming redistricting impacts. They will also be looking to redesign the user interface to make a similar feel across all platforms. Code is available on GitHub for the NY Senate. Discussions about concerns with scaling the internal functionality to a public site as well as use for the state's geocoder ensued. All the data will be updated once the Legislative Task Force on Demographic Research and Reapportionment LATFOR redraws the districts for NYS.

What's New with the DOS Geographic Information Gateway? Rebecca then gave an update on the Department of State's Geographic Information Gateway and showed the resources that are currently available at the site. The Gateway was created about seven years ago and DOS is looking to increase functionality over the next year or two. There are about 700 geographic datasets available through the Gateway, mostly marine related, but some land-based. The application provides the ability to view and download a very large variety of data. Rebecca provided a demo of the application (based on Esri's technology tools) and showed the types of data that it includes. Each data layer has multiple ways to download and get information about it, with a clean, flexible, and intuitive interface. The application provides simple ways to share and print maps. Rebecca then reviewed plans for future, which include updates to mapping tools and functionality, improved search engine capability, expanded focus pages, improved story maps, home page improvements, and improved content management tools. There was discussion about the ease of use of the interface, the convenient "click zip and ship" download functionality, future desire to use feature services instead of map services, and hiccups and issues with the current system.

Use of ArcGIS Hub for the State's Greenway Trails Plan. Christina Croll gave a presentation of NYS Parks, Recreation and Historic Preservation's (Parks) Greenway Trails Plan ArcGIS Hub site. Legislation in 2019 directed Parks to prepare a non-motorized recreational (rebranded as "Greenway") trails plan. The plan was adopted in April 2021. NYS Parks worked with Parks & Trails NY to help with surveys and get public feedback. Esri's ArcGIS Hub (a community engagement platform), was the technology chosen to provide information about the greenway trails and to get public input. It provided developers more control over the way content was displayed, beyond the information on Parks' PDF-centric Master Plans site, making it much easier to search and browse data, solicit feedback, and allow the public to interact with the data. It allows for embedding photos and information with blurbs that link back to plans and an interactive map of all trails, highlighting the Empire State Trail. Christina provided an overview of the site and demonstrated how users can report errors through the interface. It includes a StoryMap that shows the results of the survey. The data is posted in ArcGIS Online. Christina noted improvements and plans that she'd like to see, and noted that the Empire State Trail data on ArcGIS Online has already received almost 4 million views since its release in the fall.

Open Forum.

- Eric noted that the DOS Gateway site often gets blocked by state agencies when using https, and that the link can be changed to http.
- Eric also asked about thoughts regarding continued remote meetings versus in person. There were mixed opinions, weighing easy of attendance for portions of a meeting, eliminating commuting times, and having larger turnout against the disadvantages of less personal interaction, interruptions, networking, follow-ups, and questions/answers. A hybrid approach may be an option but could be complicated with multiple laptops.

A recording of the meeting is here: <u>NYS GIS State Agency Advisory Group Meeting-20210518 1331-1</u> Contact Eric (email listed below) for the password.

The next meeting is tentatively scheduled for September 21 from 9:30am-12:00pm at the Thruway Authority, or held virtually, as appropriate at that time. If you have any ideas for topics or would like to provide a demonstration at this meeting, please let us know. Send any questions or concerns about any of these issues to the Advisory Group Chair, Eric Herman at the NYS Thruway Authority (518) 471-5890, or eric.herman@thruway.ny.gov.